All new claims are fully supported in the specification and introduce no new matter for the following reasons. First, prior claims have been amended by renumbering so that dependent claims now appear grouped together following their parent claims. In particular, the following list pairs each new claim with the prior claim from which it was renumbered:

116 from 87,
118 from 89,
119 from 110,
122 from 88,
123 from 90,
124 from 91,
126 from 109,
129 from 107,
130 from 96,
131 from 97,
132 from 98,
133 from 99,
134 from 100,
135 from 110,
138 from 114,
140 from 108,
141 from 92,
143 from 93,
144 from 104,
145 from 105, and
147 from 106.

Second, new claims 117, 120, 121, 125, 127, 128, 136, 137, 139, 142, and 146, which are not renumbered from prior claims, have been added. Support for all claim amendments can be found in the following table.

Amended Claim	Support in Specification
116	Page 5, lines 11-14; page 28, lines 15-20; page 33, lines 19-20; page 34, lines 13-17; page 35, lines 11-13; page 36, lines 11-14; page 37, lines 8-10; page 67, lines 4-13; and Fig. 3
117	Page 60, lines 2-6.
118	Page 15, lines 17-22.
120, 142	Page 38, lines 14-17.
121	Page 32, lines 8-14.
122	Page 60, lines 6-9.
125, 126, 136	Page 32, lines 25-31
127, 128, 137, 139, 146, 147	Page 31, line 3-5; page 31, line 31 to page 32, line 4
129, 140	Support for claim 116 and page 30, lines 10-13 and 18-19; and Fig. 4

All claim amendments are made solely to more particularly point out and distinctly claim that which the Applicants regard as their invention. In particular, nearly all the amendments are to more explicitly recite either message exchange direction, that is either from or to the intermediary, or also message contents, that is data relating to the amounts of commodities requested or offered. Because these elements were equivalently recited present in the prior claims, as properly interpreted in view of the specification, it is submitted that these amendment do not change the scope (or narrow) the claims.

Further, because both the prior claims and the new claims are of similar scope, it is respectfully submitted that the new claims are patentable over the cited art for the reasons previously presented in the Amendment filed December 11, 2000 and in the Interview of July 14, 2001, as well as the reasons reiterated herein.

Interview Summary

The Applicants and the undersigned thank Examiners Stambler and Myhre for the courtesy of the personal interview of July 14, 2001. Attending, in addition to the Examiners, were Mr. Mauricio Karchmer, an inventor, Mr. Steven Wallach, an attorney for the assignee, and Mr. Dwight Renfrew, an associate of Mr. Wallach.

The Applicants presented the significant differences between the claimed invention and the disclosure of Ausubel. Differences from the disclosure of Thiessen were also presented. This interview presentation is amplified herein.

The Examiners introduced brief consideration of auction models other than those disclosed in Ausubel. The Applicants respectfully limit their remarks below to the prior art relied on in the Office Action of April 23, 2001.

1. DOUBLE PATENTING REJECTIONS

The Examiner has rejected prior claims 87-92, 95-100, and 103-115 under the judicially created doctrine of obviousness-type double patenting over certain claims of U.S. patent no. 5,873,071. In response, upon an indication of allowable claims in the present application, the Applicants intend to submit terminal disclaimers deemed necessary.

The Applicants respectfully submit that the instant double patenting rejections are

fully obviated by and responded to by the above remarks.

2. CLAIM REJECTION UNDER 35 U.S.C. § 103 OVER AUSUBEL

The Examiner has rejected prior claims 87-92, 95-100, and 103-115 under 35 U.S.C. § 103(a) as being unpatentable over Ausubel (U.S. patent 5,905,975; hereinafter "Ausubel").

The Applicants respectfully traverse the instant rejections, because they submit that the Examiner has not met the burden of establishing the elements required for a *prima facie* case of obviousness for any of the pending (and also for any of the prior) claims. To establish a *prima facie* case of obviousness, an Examiner must establish the following three elements.

> To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.[1]

In other words, an Examiner must find in the prior art, and not in an applicant's own disclosure, (i) a suggestion or motivation to modify the reference or to combine reference teachings, (ii) a reasonable expectation of success, and (iii) teachings or suggestions of all the claim limitations.

Specifically, in view of these required findings, it is respectfully, but vigorously, submitted that Ausubel also does not teach or suggest all the claim limitations, because Ausubel's messages, their types, and their detailed contents are entirely different from those claimed in the present invention. But, even assuming, *arguendo*, that all the individual limitations somehow can be found in Ausubel's disclosure, Ausubel does not teach, motivate, or suggest the success of, the recited functional combinations. Importantly, the claim limitations functionally interrelate in specifically recited manners in order to accomplish the claimed functions, namely determining an intermediated exchange of commodities among participants in the exchange. These recited functional combinations and interrelations are

---

[1] M.P.E.P. § 2142 (and the cases cited therein) (emphasis added).

simply not taught or suggested by Ausubel.[2] Teachings, suggestions, or motivations to combine are very key elements of a *prima facie* case of obviousness without which the *prima facie* case is no more than hindsight reconstruction of the inventor's invention.[3]

Ausubel's Disclosure And The Claimed Invention

That Ausubel does not suggest or motivate the claimed invention, and that it is in fact impossible for this reference to do so, is most easily presented with reference to attached figures, where Figs. 1A-B compare the structures of this invention and those of Ausubel and Figs. 2A-B illustrate why the teachings of Ausubel cannot suggest the claimed invention. Ausubel's disclosed system, illustrated in Fig. 1B, includes a single "auction system," which hosts a query (or an auctioneer) process, and which is "communicatively interconnected" with each of "a plurality of user systems," each of which hosts a user (and a database) process.[4, 5] Ausubel's computer-implemented auctions are carried out by messages exchanged (illustrated by double-headed arrows) exclusively between the single, central auctioneer system and each, individual user system. No messages at all are exchanged directly between the users.[6]

---

[2] The importance of teachings to combine the references is found in many cases. For example, see Ruiz v. A. B. Chance Co., 234 F.3d 654, 57 USPQ2d 1161 (Fed. Cir. 2000) (emphasis added)

> In order to prevent a hindsight-based obviousness analysis, we have clearly established that the relevant inquiry for determining the scope and content of the prior art is whether there is a reason, suggestion, or motivation in the prior art or elsewhere that would have led one of ordinary skill in the art to combine the references.

[3] *In re Rouffet*, 47 USPQ 2d 1453, 1457 (Fed. Cir. 1998) (citations omitted and emphasis added), the Federal Circuit has recently stated:

> "virtually all [inventions] are combinations of old elements." . . . Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." . . . To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.

[4] In Ausubel methods and systems, "users" are persons who bid to buy or sell in an auction; in other words they are participating parties in the actual auction.

[5] Ausubel, col. 7, lines52-65; and col. 8, lines 21-37; also Figs. 1 and 2.

[6] *Id.*, and Ausubel, col. 17, lines 27-29 and col. 20, lines 33-37 (disclosing the importance of user confidentiality); Fig. 2 (illustrating messages between an auctioneer system and one use system but does not illustrate any messages between two user systems).

The messages disclosed include, first, auction initialization messages to the users, and then subsequently of a number of "query messages" from the auctioneer to the users, each query message providing information on the current state of the auction (*e.g.*, the current bid price) and requesting an "answer message" (or "bid" message) with updated bid information from a queried user. The bid messages, returned from the users back to the auctioneer, include the sending users current bid in the auction.[7] The auctioneer can terminate the auction at any time by sending a "final message," which accepts current bids of successful users and informs others users that the auction is terminated.

Fig. 1B further illustrates in more detail the bi-directional message exchange in Ausubel between the auctioneer system/process and the left-hand user system/process.[8] The auctioneer controls the auction by sending, after initialization, query messages asking for revised bids from users, and terminates the auction by sending a final message that accepts winning bids. The users do no more than respond to the auctioneer's query messages by sending bid messages with revised bids in view of the current progress of the auction (*e.g.*, bidding at a revised price higher than the current price). Bid messages must include information indicating a "willingness-to-pay or value which a bidder places on the object(s) [being auctioned]."[9]

Although Ausubel applies these systems and methods to ten exemplary types of auctions, a thorough reading of these examples, many described at great length, reveals that all are structured exactly as described above and as illustrated in Fig. 1B.[10] The examples differ only in the rules by which users generate bids and in the rules by which the auctioneer processes the bids to decide to continue or to terminate the auction.

In summary, in Ausubel's auctions, as in all auctions known to the Applicants, it is the auctioneer that controls the auction. Auction participants, Ausubel's users, propose bids, which are offers that are binding if accepted, while the auctioneer disposes of bids, either

---

7 Ausubel, col. 8, line 58 to col. 9, line 12 (generally); also col. 9, line13 to col. 10. , line 26 (in detail)

8 Ausubel, col. 6, lines 37-63; col. 7, lines 12-18; col. 9, line 14 to col. 10, line 18; and Figs. 3A-C.

9 Ausubel, col. 6, lines 50-60.

10 See Ausubel's examples 1-10 which describe standard auctions for the sale or purchase of single objects, auctions for the sale of multiple dissimilar objects, Vickery auctions, modified-Vickery auctions, generalized-English auctions, and so forth.

soliciting new revised bids or terminating the auction by accepting a winning bid resulting in a sale binding on the winning bidder.

Turning next, the present invention's methods and systems for determining commodity exchanges, Fig. 1A illustrates that these include a single "intermediary" process (hosted on an order manager system), which automatically facilitates (or intermediates) determination of the amounts of commodities to be exchanged among the participants. They also include a number of "e-agent" ("participant") processes, which automatically represent wishes of the participants in the exchange.[11] Commodity amounts to be exchanged are determined as a results of messages exchanged (again illustrated by double-headed arrows) between the single, central intermediary system and each participant system individually. No messages at all are exchanged directly between the participants.[12]

The recited messages, illustrated in more detail for the left-hand participant, include initial opening messages to the intermediary, in which the participants indicate their individual bounds on acceptable commodity exchanges.[13] Next, "offer messages" are sent from the intermediary to the participants, who respond with "counter-offer" to the intermediary. In the offer messages, the intermediary proposes to each receiving participant determined allocations of commodities for exchange. If the intermediary's offer is not satisfactory to the receiving participant, it may respond with a counter-offer message requesting a further offer (optionally within revised commodity-exchange bounds). However,

---

[11] Specification, page 26, line 25 to page 27, line 2; page 30, lines 8-17; and Figs. 1 and 4.

[12] See, *e.g.*, specification, page 60, lines 3-7.

[13] As claim 1 recites, "opening messages" comprise "digital data representing opening requests of the participants to buy and/or to sell amounts of one or more commodities, and wherein, for at least one commodity the opening messages comprise both buy and sell requests." Opening messages initialize the exchange by informing the intermediary of the bounds on commodity amounts in acceptable offers.

The "offer messages" from the intermediary to the participants comprise "digital data representing offers to the participants to buy and/or to sell amounts of one or more commodities." Offer messages from the intermediary propose feasible exchanges to the participants.

The "counter-offer messages" from the participants to the intermediary may "represent offered amounts of one or more commodities to buy and/or to sell in the exchange that are substantially satisfactory according to that participant's individual exchange objectives," or may comprise "digital data representing further requests to buy and/or to sell amounts of one or more commodities." Finally, counter-offer messages may accept intermediary offers if satisfactory, or may update the bounds on acceptable offers.

The other independent claim recite same message exchanges and contents.

if the intermediary offer is satisfactory, the receiving participant may accept the offer by responding with a counter-offer message indicating acceptance.

In summary, in the commodity exchanges recited in the present invention, it is the participants that control. The intermediary does no more than propose commodity allocations to the participants, which preferably maximize total commodity exchange while achieving a fair allocation among the participants.[14] It is the participants that dispose of the intermediary's offers by accepting them or by having the intermediary try again. Briefly, the intermediary proposes offers, but participants dispose of offers.

Ausubel Does Not Teach The Claimed Messages

Most importantly, it is submitted that Ausubel does not teach or suggest all claim limitations, because the message contents of Ausubel differ completely from those of the present invention. This difference results because Ausubel and the present invention relate to entirely different transaction types leading to different types of commodity exchanges.

In Ausubel's auctions, as in all auctions known to the Applicants, the objects that are the subject of the auction, like the auction process itself, are under the sole control of the single auctioneer. Ausubel's users, that is auction participants, cannot legitimately have any interest in the objects being auctioned if the auction is to be fair and impartial.[15] Objects that are the subject of an auction necessarily originate from persons who cannot then be participants in the auction bidding process. Thus, it is the auctioneer that, upon the auctioneer's determination of the winning bid (or bids), transfers the objects that are the subject of the auction to the winning bidder. Furthermore, Ausubel's disclosed auctions, again as in all other auctions known to the Applicants, are either auctions for sale, or auctions

---

[14] The intermediaries partitioning or allocating action is recited in the limitation that "the offer messages comprise both buy and sell requests, and wherein, for each commodity, the total of the amounts offered for sale in all the generated offer messages equals the total of the amounts offered for purchase in all the generated offer messages." Specification at, *e.g.*, page 25, lines 14-20; and page 28, lines 15-20.

Preferable allocations are recited in dependent claims 131-133. Specification at, *e.g.*, page 60, lines 6-9.

[15] For example, if the owner of an object being auctioned actually bid as a participant against other auction participants for that object, its price would almost certainly be fraudulently inflated. No disinterested individual would knowingly participate in such a transaction, for this as well as for other business reasons.

for purchase, but not both at the same time. That is, the direction of object transfer is in one direction only, either from the auctioneer or to the auctioneer.

In summary, objects that are the subject of a fair and impartial auction must be transferred either from the auctioneer to winning participants or from winning participants to the auctioneer, but not both. Auctioned objects cannot be transferred from a losing bidder to a winning bidder.

Fig. 3B illustrates transfer of objects upon termination of a sales auction. Here, the solid arrow represents transfer of the object that was the subject of the auction from the auctioneer to the winning participant (user). In fact, detailed study of all the examples described by Ausubel, which include auctions of single objects, or of multiple objects, or of multiple dissimilar objects, or so forth, and according to Vickery rules, or modified Vickery rules, or generalized English rules, or so forth, confirms the pattern of Fig. 3B (the dotted arrows representing that, according to certain of these auction rules, more than one participant may be a winner). Object transfers in auctions are thus either uni-directional and one-to-one (optionally one-to-many) from the auctioneer to the bidder(s).

The disclosed contents of Ausubel's messages are determined by and reflect this unidirectional, one-to-one object transfer determined by auctions. All the disclosed auction messages describe transactions that transfer objects from the auctioneer or to the auctioneer; none have any content relating to transfer between auction participants. For example, bid messages from users have contents describing either bids to the auctioneer to purchase (at a definite price) or to sell (at a definite price), but not both. Similarly, query message to the users solicit new bids to the auctioneer to buy, or to sell, but not both. And final messages form binding agreements between the auctioneer and the winning user to sell (at a specified price), or to purchase agreements (at a specified price), but not both to purchase and to sell.

In contrast to Ausubel's disclosure and as Fig. 3A illustrates, the commodity transfers recited by the present invention are exclusively between the participants. The intermediary is only a facilitator, which, for each commodity, receives sales amounts from the participants wishing to sell that commodity, and then allocates these amounts among the participants wishing to purchase that commodity. Stated differently, the intermediary is simply a "transfer agent," there being no net transfer of anything between the intermediary and the participants.

Before the intermediated exchange begins, the intermediary itself neither owns nor controls any commodities at all, and the same is true at the completion of the exchange. The recited commodity exchanges are always bi-directional exchanges between the participants, and are almost always many-to-many.[16]

From a different perspective, Ausubel's auctions can result in a single "winning" participant, who then receives from the auctioneer whatever objects were the subject of the auction. Such a result is impossible in the present invention. There must always be at least two "winning" participants. One of the winning participants provides one or more commodities to the other of the winning participants, with the intermediary having no net role in the final commodity exchange.

Accordingly, the messages recited in the claims always necessarily include digital data representing both buy and sell amounts for one or more commodities. If at least one participant is not willing to buy (or to sell) at least one commodity that at least one other participant is willing to sell (or to buy), no exchange is possible. In detail, the initializing opening messages provide for a bi-directional exchange by including, for each commodity, both amounts the participants are willing to buy and the amounts they are willing to sell in the exchange.[17] Further, because the intermediary is only a transfer agent for the participants, for each commodity, the total of all the amounts offered for sale in the all the offer messages from the intermediary to the participants must equal the total of all amounts offered for purchase in all the offer messages.[18, 19] Finally, counter-offer messages have data either accepting amounts to both buy and to sell, or expressing willingness to buy and sell newly

---

[16] In a particular exchange, it may turn out that exchange occurs only between one "broker" participant and the remaining "consumer" participants. However, even here the exchange is exclusively between the participants.

[17] Thus the independent claims recite that "for at least one commodity the opening messages comprise both buy and sell requests."

[18] Thus the independent claims recite that the "offer messages comprise both buy and sell requests, and wherein, for each commodity, the total of the amounts offered for sale in all the generated offer messages equals the total of the amounts offered for purchase in all the generated offer messages."

[19] Because the participants control exchanges of this invention, they can terminate an exchange of a commodity by refusing to consider further buys or sells of that commodity. Thus, the counter-offer messages need not include both buy and sell amounts for each commodity.

proposed amounts. These message contents are completely different from the Ausubel's message contents.

In conclusion, therefore, because Ausubel's messages facilitate a one-to-one/many uni-directional auction where the single auctioneer transfers or accepts all objects, they do not and cannot teach or suggest messages of the present invention that facilitate a many-to-many bi-directional exchange among the participants, where the intermediary is merely a transfer agent for the participants.

Ausubel's Does Not Teach The Claimed Message Exchange

Next and of equal importance, it is submitted that Ausubel does not, and cannot, teach or suggest the claimed functional interrelations and combinations of the messages as recited in the claims.

Ausubel's systems and methods, disclosing message exchange between a single auctioneer and a number of users, can teach or suggest the claimed systems and methods, reciting message exchange between a single intermediary and a number of participants, in only two ways. Either, the auctioneer teaches or suggests (that is, corresponds to) the intermediary, or it does not. If, in a first possibility, the auctioneer "teaches" the intermediary, then Ausubel's users must "teach" the invention's participants. If, in a second possibility, the auctioneer does not "teach" the intermediary, then the intermediary must be "taught" by one of Ausubel's users, with the auctioneer and the remaining users "teaching" the remaining participants. There are no other possibilities of relating the elements of Ausubel's disclosure to the elements of the claimed invention.[20]

Figs. 2A-B illustrates these two possibilities by superimposing the two possible correspondences for Ausubel's auctioneer and users on Fig. 1B, which illustrates Ausubel's message exchange. Fig. 2A illustrates the first possibility above, in which the auctioneer "teaches" the intermediary, while Fig. 2B illustrates the second possibility, in which the "auctioneer" instead "teaches" one of the claimed invention's participants. Cursory inspection

---

[20] Other correspondences, such as the auctioneer corresponding to the intermediary and to participants, simply have no basis in Ausubel, and are not considered.

of these figures immediately demonstrates that neither possibility correctly "teaches or suggests" the claimed invention as a whole.

Concerning the first possibility, Fig. 2A shows that if Ausubel's auctioneer "teaches" the intermediary, then Ausubel as a whole does teach the bi-directional message exchange between the intermediary and the participants (as then "taught" by Ausubel's users). However, according to this possibility, Ausubel incorrectly, but necessarily, teaches that the intermediary would control the claimed commodity exchange by sending query messages to the participants, which then respond with offer messages. Finally, the intermediary would then dispose of participant offers by either accepting them or by querying for new offers. This is incorrect; the discussion above and review of Fig. 1A shows that the claimed messages are exchanged in just the opposite direction so that it is the participants that control the claimed commodity exchanges by responding to the intermediary's offers with either requests for new offers or an acceptance.

Concerning the second possibility, Fig. 2B immediately shows that if Ausubel's auctioneer does not "teach" the intermediary, then Ausubel as a whole cannot not teach the bi-directional message exchange between the intermediary and the participants. In this possibility, Ausubel teaches that messages are exchanged between the intermediary (as then "taught" by one of Ausubel's users) and a distinguished participant (as then "taught" by Ausubel's auctioneer), which corresponds to the auctioneer, this participant then exchanging messages with the remaining participants. In the claimed invention, the intermediary, of course, exchanges messages with all participants, while no participant exchanges messages with any other participant. (However, according to the teachings of this possibility, messages of the correct type are exchanged between the intermediary and the single participant with which it exchanges messages, namely the intermediary sends offers to the single participant, while the single participant either accepts an offer or requests further offers from the intermediary.)

In conclusion, it is submitted that Ausubel does not teach or suggest the present invention. In fact, Ausubel cannot do so, because Ausubel's computer-implemented auctions of and the present invention's computer-implemented commodity exchanges are fundamentally different transactions. Specifically, Ausubel does not disclose, teach, or in

any way suggest as a whole, the message exchanges, message types, and message contents as combined and interrelated in the claims of the present invention. Either, Ausubel may teach the recited message types (but does not in fact do so) but then cannot teach message exchange, or may teach the recited message exchange but then cannot teach the recited the message types.

Further Deficiencies Of Ausubel's Disclosure

Ausubel is further deficient because of price data. All Ausubel's messages necessarily include price data. Bid messages in Ausubel's auctions (and in auctions in general) must contain data relating to "the willingness to pay which a bidder places on object(s)."[21] Query messages request further bids at usually increased prices; and the final message accepts bids at their last offered price.

However, no message in the present invention is necessarily price sensitive. In fact, the present invention includes many embodiments that are not at all concerned with determining price or value. In one such embodiment, as illustrated in Fig. 1A, price is externally determined, and may optionally be used to indicate to the participants monies owed or due, but only after the commodity exchange amounts are determined without regard to price.[22] Therefore, no messages in the present invention, none of which are necessarily price sensitive, can be taught by Ausubel's exclusively price-sensitive messages.[23]

Furthermore, in many situations, Ausubel's auctions can require complex, lengthy, and time consuming computation that would be entirely inapplicable in the present invention. Because the present invention is streamlined for efficient and rapid determination of commodity exchanges, the recited message contents are limited and the automatic message generation is heuristically guided.[24] In a preferred application to the exchange of financial

---

[21] See Ausubel at, *e.g.*, col. 6, lines 50-57. Further, all of Ausubel's disclosure of his invention and all of the description of its ten examples consistently describes bidding to involve placing values on single objects, or on multiple objects, or on subsets of multiple objects, whether the objects are for sale or fir purchase by the auctioneer.

[22] Dependent claims 126, 127 and 137.

[23] See the specification at, *e.g.*, page 32, lines 26-30.

[24] Specification, page 44, lines 7-12; and claim 121.

commodities recited in claim 121, the methods and systems of this invention are capable of completing an exchange of hundreds of commodities in less than 90 seconds. Ausubel's disclosure, on the other hand, can require the auctioneer to perform exponentially complex calculations to determine the outcome of auctions with multiple objects. For example, in the case of two bidders for multiple objects, all subsets of multiple objects must be "sub-auctioned" between the two bidders; in the case of more than two bidders, all subsets of the multiple objects must be sub-auctioned among all pairs of the bidders.[25] Requiring consideration of all subsets of a set is well known to lead to calculations of polynomial and exponential complexity. Therefore, Ausubel's involved and expensive methods are simply inapplicable and impractical in the fields of rapid commodity exchange occupied by the present invention.

Thus, for these additional reasons, Ausubel's message exchange, types, and contents do not teach of suggest the message exchange, types, or contents claimed in the present invention.

In final conclusion, the Applicants respectfully submit that, because Ausubel does not teach or suggest all elements of any of the Applicants' independent claims, this reference does not make these claims obvious, nor claims that are dependent on these claims. Therefore, the Applicants courteously request reconsideration and withdrawal of the present rejection.

3. CLAIM REJECTIONS UNDER 35 U.S.C. § 103 OVER AUSUBEL AND THIESSEN

The Examiner has rejected prior claims 97, 98, and 100 under 35 U.S.C. § 103(a) as being unpatentable over Ausubel in view of Thiessen (U.S. patent 5,495,412; hereinafter "Thiessen"). The Examiner contends that Ausubel "teaches a method for negotiating transactions of commodities," and that Thiessen supplements Ausubel by disclosing "an unfairness calculation (satisfaction function) for resolving conflicting goals of participants during negotiations (col. 4, lines 26-44) to maximize the satisfaction level (thus, minimizing

---

[25] Ausubel, col. 18, lines 14-33 (multiple objects and two bidders); and col. 20, line 38 to col. 21, line 7 (multiple objects and more than two bidders).

the unfairness level) for each participant." The Applicants respectfully traverse the instant rejection because Thiessen does not actually disclose the unfairness calculation recited in the claims, and also because this reference does not overcome the deficiencies of Ausubel in teaching or suggesting the claimed invention.

First, it is submitted, contrary to the Examiner's contentions, that Thiessen's general satisfaction functions are not teachings or suggestions of the Applicants' recited unfairness. Thiessen actually discloses, at the lines cited by the Examiner and elsewhere in this reference, no more than entering and using satisfaction functions in general. Thiessen proposes no limitations whatsoever on these satisfaction functions; they may represent any preferences of the parties at all without limitation.[26] In contrast, the "unfairness" that is recited and claimed concerns specific allocation of commodities among the participants, namely an allocation that is not *pro rata* or proportionate.[27] *Pro rata* commodity allocations are not disclosed anywhere in Thiessen, and therefore certainly are not required of Thiessen's satisfaction functions. Accordingly, the recited unfairness is not explicitly on inherently taught by Thiessen.

Indeed, satisfaction of individual parties according to Thiessen is submitted to be entirely different from fair, *pro rata,* allocations as recited in the present invention. For example, it is more than likely than not that one of Thiessen's parties would be more "satisfied" by a greater amount of a commodity, regardless of what other parties received, than with a lesser amount so that others could have their "fair" shares. For "greedy" parties, the more unbalanced and disproportionate the allocation, the more "satisfied" will be parties. There is no assurance at all that a *pro rata* allocation will "satisfy" all, or even any, of the participants in the sense of Thiessen.

In summary, it is submitted that, because Thiessen does not teach or suggest, implicitly or inherently, the claimed unfairness calculation, this reference in combination with Ausubel does not establish a *prima facie* case of obviousness of the rejected claims.[28]

---

[26] Thiessen, col. 3, lines 23-26; and col. 12, lines 18-25.

[27] Specification at, *e.g.*, page 65, lines 5-13.

[28] The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. It has been held that: "[t]o establish inherency, the

Furthermore, Ausubel combined with Thiessen does not establish a *prima facie* case of obviousness of the rejected claims, or of any pending claims, for the additional reason that Thiessen does not overcome any of Ausubel's deficiencies in teaching or suggesting the recited commodity exchanges. The present claims recite that opening, offer, and counter-offer messages containing data representing participant buy and sell amounts are automatically generated and exchanged so that an intermediated exchange of commodities may be automatically determined.

Thiessen does not teach or suggest such messages nor intermediated exchanges, either explicitly or inherently. The nature of the information exchanged and the process of its exchange in Thiessen is entirely different from that of in the claimed invention. For example, the information sent to Thiessen's central computer includes a number of complex variables and functions that allegedly characterize a user's preferences concerning the issues in the negotiation.[29] The central computer uses this information to discover a "common base" for the negotiation, or improvements on the common base, which are then transmitted back to the parties for their manually review. [30, 31] None of these exchanges teach, either explicitly or inherently, the opening, offer, and counter-offer messages and their contents as specifically recited in the present invention.

Moreover, Thiessen cannot suggest modification of the disclosed computer-assisted negotiation methods to solve the problems addressed by the present invention, because, like Ausubel, Thiessen's methods are too cumbersome and time consuming. Thiessen requires parties to the negotiation to input complex preference information, requires expensive computations to discover alternatives, and finally presumes that the parties manually evaluate the discovered alternatives. These time-consuming steps are simply inapplicable and impractical in the fields of rapid commodity exchange occupied by the present invention.

---

extrinsic evidence `must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " M.P.E.P. § 2112 (citations omitted)

[29] Thiessen, col. 6, line 61 to col. 7, line 2.

[30] Thiessen at, *e.g.*, col. 3, lines 28-36 and 52-62.

[31] Thiessen, col. 5, lines 51-60.

In conclusion, then, the Applicants respectfully submit that, because Thiessen does not teach or suggest the claimed "unfairness" calculation, and furthermore that, because Thiessen, whether or not combined with Ausubel, does not teach or suggest all elements of any of the Applicants' independent claims, these references do not make any pending claims obvious. Therefore, the Applicants courteously request reconsideration and withdrawal of the present rejection.

CONCLUSION

The Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-captioned application. The Applicants believe that each ground for rejection or objection has been successfully overcome or obviated and that all the pending claims are in condition for allowance. Reconsideration and withdrawal of the Examiner's objection and rejections and allowance of the application is earnestly requested.

Any fee necessary is believed to be paid by the authorization contained in the transmittal letter filed concurrently herewith; please charge any fee deemed necessary, including any fees for response time extensions deemed necessary, or credit any overpayment to Pennie & Edmonds deposit account no. 16-1150.

If any outstanding issues remain, the Examiner is invited to telephone the undersigned to discuss the same and to arrange for prompt and efficient handling of the above-captioned application.

Respectfully submitted,

Date October 11, 2001

Steven I. Wallach 35,402
STEVEN I. WALLACH (Reg. No.)

By: 38,594
Dwight H. Renfrew, Jr. (Reg. No.)

PENNIE & EDMONDS LLP
1155 Avenue of the Americas
New York, New York 10036-2711
(212) 790-9090

Enclosure (Figs. 1A, 1B, 2A, 2B, 3A, and 3C)

EXHIBIT A
MARKED VERSION OF THE CLAIMS APPLICATION SERIAL NO. 09/209,815

[87. (Amended)] 116. (New) A computer implemented method for an electronic intermediated exchange of a plurality of commodities among a plurality of participants comprising the electronic negotiation steps of:

(a) generating electronic opening messages from the participants to the intermediary, wherein the opening messages comprise digital data representing opening requests of the participants to buy and/or to sell amounts of one or more commodities, and wherein, for at least one commodity the opening messages comprise both buy and sell requests;

(b) generating electronic offer messages to the participants from the intermediary in accordance with objectives of the intermediated exchange, wherein the electronic offer messages comprise digital data representing offers to the participants to buy and/or to sell amounts of one or more commodities with each offer being less than or equal to the amounts represented in the corresponding opening request, and wherein, for at least one commodity, the offer messages comprise both buy and sell requests, and wherein, for each commodity, the total [amount of all sell offers] of the amounts offered for sale in all the generated offer messages equals the total [amount of all buy offers] of the amounts offered for purchase in all the generated offer messages,

(c) generating electronic counter-offer messages from the participants to the intermediary in accordance with the participants' individual exchange objectives, wherein the electronic counter-offer messages comprise digital data representing further requests to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, and wherein the counter-offer messages are generated in response to the previous electronic offer messages, and wherein, for at least one commodity, the counter-offer messages comprise both buy and sell requests; and

(d) repeating steps (b) and (c), if necessary, until the last offer [messages] message to each participant is indicated in a further message to the intermediary from that participant to

represent offered amounts of one or more commodities to buy and/or to sell in the exchange that are substantially satisfactory according to [the] that participant's individual exchange objectives [or according to the objectives of the intermediated exchange]

, whereby the substantially-satisfactory offered amounts determine an exchange of a plurality of commodities among a plurality of participants.

117. (New) The method of claim 116 wherein the intermediated exchange is determined without any messages being sent directly from any one participant to any other participant.

[89. (Amended)] 118. (New) The method of claim [87] 116 further comprising, before the step of generating opening messages, a step of generating a plurality of electronic initial messages [, each of the electronic initial messages including] from the participants to the intermediary, and wherein the initial messages comprise digital data representing the identities of the commodities that the participants [can be exchanged] may exchange in the intermediated exchange.

[110. (Amended)] 119. (New) The method of claim [87] 116 wherein electronic offer messages are generated so that, after a number of repeats of steps (b) and (c), there is at least one commodity and at least one participant for which the amount offered for sale or purchase is less than the amount previously offered.

120. (New) The method of claim 116 wherein counter-offer messages sent from each participant are generated so that counter-offered commodity amounts are less than or equal to corresponding offered commodity amounts represented in the previous offer message.

121. (New) The method of claim 116 wherein the messages are generated so that the exchange is determined in 90 seconds or less.

[88. (Amended)] 122. (New) The method of claim [87] 116, wherein the objectives of the intermediated exchange [reflect] depend on the interests of the plurality of the participants.

[90. (Amended)] 123. (New) The method of claim [87] 116 further comprising, before the step of generating opening messages, a step of receiving and storing by the intermediary of electronic objective messages from an operator of the electronic intermediated exchange, each of the electronic objective messages including digital data representing the objectives of said intermediated exchange.

[91. (Twice amended)] 124. (New) The method of claim [87] 116, wherein the objectives of the intermediated exchange are represented by a parameterized utility function with constraints that [reflect] depend on the interests of the plurality of the participants.

125. (New) The method of claim 116 further comprising a step of determining, for each participant, the monies due from and the monies due to the participant in dependence on the participant's substantially-satisfactory commodity amounts and on concurrent commodity prices.

[109.] 126. (New) The method of claim [87 wherein] 125 further comprising obtaining the concurrent commodity prices [are externally given] from an external source.

127. (New) A computer system for automatically determining a single simultaneous exchange of a plurality of commodities among a plurality of participants comprising:

one or more processors,

one or more links communicatively connecting the processors, and

one or more memories accessible by the processors and storing program instructions for causing the processors to perform the method of claim 116.

128. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 116.

[107. (New)] 129. (New) A computer [system] implemented method for electronic intermediated exchange of a plurality of commodities among a plurality of participants comprising the steps of: [a processor, and an electronic memory accessible to the processor for storing (i) digital data representing commodity exchange objectives of the intermediated exchange, and (ii) program instructions for causing the processor to perform the step of generating electronic offer messages in accordance with objectives of the intermediated exchange until the offer messages are substantially satisfactory in accordance with the objectives of the intermediated exchange or are indicated to be satisfactory by the participants, wherein the offer message are generated in response to]

(a) receiving from the participants

(i) electronic opening messages, which comprise digital data representing [initial] opening requests of the participants to buy and/or to sell amounts of one or more commodities, and

(ii) electronic counter-offer messages, which comprise digital data representing further requests of the participants to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, and

(b) generating electronic offer messages to the participants,

wherein the offer messages are generated in response to previously received opening messages and/or to counter-offer messages,

wherein electronic offer messages comprise digital data representing offers to the participants to buy and /or to sell amounts of one or more commodities with each offer [is] being less than or equal to the amounts represented in the corresponding opening request, and

wherein, for at least one commodity, the opening messages and the offer messages comprise requests to both buy and to sell, and, for each commodity, the total [amount of all sell offers] of the amounts offered for sale in all the generated offer messages equals the total [amount of all buy offers] of the amounts offered for purchase in all the generated offer messages, and

(c) repeating steps (a) and (b), if necessary, until the last offer message to each participant is indicated in a further message from that participant to represent offered amounts of one or more commodities to buy and/or to sell in the exchange that are substantially satisfactory according to that participant's individual exchange objectives of the participants,

whereby the substantially-satisfactory offered amounts determine an exchange of a plurality of commodities among a plurality of participants.

[96. (Amended)] 130. (New) The [computer system] method of claim [107] 129 wherein the [electronic memory further stores digital data representing a plurality of bounds on selling or buying of each commodity by each of the participants, and wherein the objectives of the intermediated exchange include substantially maximizing amounts of commodities exchanged in the intermediated exchange subject to the constraint that for each commodity the amount sold or bought by each participant is less than the appropriate one of the bounds] offer messages are generated so that the total amounts of the commodities offered for exchange in all offer messages are substantially maximized.

[97. (Amended)] 131. (New) The [computer system] method of claim [96] 129 wherein the [step of generating] offer messages [in accordance with the objectives of the intermediated exchange further comprises] are generated so that [substantially minimizing] a measure of the unfairness of the share of commodities offered to each participant is substantially minimized.

[98. (Amended)] 132. (New) The [computer system] method of claim [97] 131 wherein the measure of unfairness increases as the share of commodities offered to [each participant] the participants differs from a pro-rata share.

[99. (Twice amended)] 133. (New) The [computer system] method of claim [107] 129 wherein the step of generating the electronic offer messages further comprises substantially maximizing the value of a utility function of the amounts of commodities subject to constraints.

[100. (Amended)] 134. (New) The [computer system] method of claim [99] 133 wherein the utility function comprises a difference of a first term and a second term, the first term representing the total amount of all commodities offered to the participants and the second term representing the unfairness of the share of commodities offered to the participants.

[110. (Amended)] 135. (New) The method of claim [123] 129 wherein offer messages are generated so that, after a number of repeats of steps (a) and (b), there is at least one commodity and at least one participant for which the amount offered for sale or purchase is less than the amount previously offered.

136. (New) The method of claim 129 further comprising:

obtaining commodity prices concurrent with the intermediated exchange from an external source, and

determining, for each participant, the monies due from and the monies due to the participant in dependence on the participant's substantially-satisfactory commodity amounts and on the concurrent commodity prices.

137. (New) A computer system for automatically intermediating a single simultaneous exchange of a plurality of commodities among a plurality of participants comprising:

a processor, and

a memory accessible by the processor and storing program instructions for causing the processor to perform the method of claim 129.

[114. (Amended)] 138. (New) The system of claim [107] 137 further comprising a communication link to [a] an external source of commodity prices.

139. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 129.

[108. (New)] 140. (New) A computer implemented method for representing a participant in an intermediated exchange of commodities among a plurality of participants comprising:

generating an electronic opening message to an intermediary, wherein the electronic opening message comprises digital data representing opening requests of the participant to buy and/or to sell amounts of one or more commodities; and

generating one or more electronic counter-offer messages to the intermediary in accordance with the participant's individual exchange objectives,

wherein the electronic counter-offer messages comprise digital data representing (i) further requests to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, or (ii) an indication that the amounts in the previous offer message [is] are substantially satisfactory to the participant,

[wherein, for at least one commodity, the electronic counter-offer messages comprise both buy and sell requests, and]

wherein each [further request] counter-offer message is generated in response to [an] a previous electronic offer message [comprising] ,

wherein an electronic offer message comprises digital data representing offers to the participant to buy and/or to sell amounts one or more commodities in accordance with objectives of the intermediated exchange with the offers being less than or equal to the amounts represented in the corresponding opening request, and

whereby the substantially-satisfactory, offered amounts represents each participant's objectives in the intermediated exchange.

[95. (Amended)] 141. (New) The [computer system] method of claim [107] 140 wherein the sending participant's substantial satisfaction with the previous offer [messages are] message is indicated [as satisfactory] when the following counter-offer [messages specify] message represents the same amounts of one or more commodities to buy and /or to sell as [specified] are represented in the previous offer [messages] message.

142. (New) The method of claim 140 wherein the counter-offer messages are generated so that counter-offered commodity amounts are less than or equal to corresponding offered commodity amounts represented in the previous offer message.

[103. (Amended)] 143. (New) The method of claim [108] 140 wherein the [exchange objectives of the participant are expressed as procedural rules, and wherein the] step of generating counter-offer messages further comprises evaluating [the] one or more procedural rules.

[104. (Amended)] 144. (New) The method of claim [108] 140 wherein the [participant's exchange objectives are expressed according to portfolio theory, and wherein the step] step of generating counter-offer messages further comprises evaluating [the] a portfolio theory.

[105.] 145. (New) The method of claim [104] 140 wherein the [participant's exchange objectives are expressed as a utility function of commodity amounts, and wherein the] step of generating counter-offer messages further comprises substantially maximizing [the] a utility function [subject to maximum amount constraints].

146. (New) A computer for automatically representing a participant in an intermediated exchange of a plurality of commodities comprising:

a processor, and

a memory accessible by the processor and storing program instructions for causing the processor to perform the method of claim 140.

147. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 140.

EXHIBIT B
THE CLAIMS PENDING UPON ENTRY OF THE PRESENT AMENDMENT IN APPLICATION SERIAL NO. 09/209,815

---

116. (New) A computer implemented method for an electronic intermediated exchange of a plurality of commodities among a plurality of participants comprising the electronic negotiation steps of:

(a) generating electronic opening messages from the participants to the intermediary, wherein the opening messages comprise digital data representing opening requests of the participants to buy and/or to sell amounts of one or more commodities, and wherein, for at least one commodity the opening messages comprise both buy and sell requests;

(b) generating electronic offer messages to the participants from the intermediary in accordance with objectives of the intermediated exchange, wherein the electronic offer messages comprise digital data representing offers to the participants to buy and/or to sell amounts of one or more commodities with each offer being less than or equal to the amounts represented in the corresponding opening request, and wherein, for at least one commodity, the offer messages comprise both buy and sell requests, and wherein, for each commodity, the total of the amounts offered for sale in all the generated offer messages equals the total of the amounts offered for purchase in all the generated offer messages,

(c) generating electronic counter-offer messages from the participants to the intermediary in accordance with the participants' individual exchange objectives, wherein the electronic counter-offer messages comprise digital data representing further requests to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, and wherein the counter-offer messages are generated in response to the previous electronic offer messages, and wherein, for at least one commodity, the counter-offer messages comprise both buy and sell requests; and

(d) repeating steps (b) and (c), if necessary, until the last offer message to each participant is indicated in a further message to the intermediary from that participant to

represent offered amounts of one or more commodities to buy and/or to sell in the exchange that are substantially satisfactory according to that participant's individual exchange objectives,

whereby the substantially-satisfactory offered amounts determine an exchange of a plurality of commodities among a plurality of participants.

117. (New) The method of claim 116 wherein the intermediated exchange is determined without any messages being sent directly from any one participant to any other participant.

118. (New) The method of claim 116 further comprising, before the step of generating opening messages, a step of generating a plurality of electronic initial messages from the participants to the intermediary, and wherein the initial messages comprise digital data representing the identities of the commodities that the participants may exchange in the intermediated exchange.

119. (New) The method of claim 116 wherein electronic offer messages are generated so that, after a number of repeats of steps (b) and (c), there is at least one commodity and at least one participant for which the amount offered for sale or purchase is less than the amount previously offered.

120. (New) The method of claim 116 wherein counter-offer messages sent from each participant are generated so that counter-offered commodity amounts are less than or equal to corresponding offered commodity amounts represented in the previous offer message.

121. (New) The method of claim 116 wherein the messages are generated so that the exchange is determined in 90 seconds or less.

122. (New) The method of claim 116, wherein the objectives of the intermediated exchange depend on the interests of the plurality of the participants.

123. (New) The method of claim 116 further comprising, before the step of generating opening messages, a step of receiving and storing by the intermediary of electronic objective messages from an operator of the electronic intermediated exchange, each of the electronic objective messages including digital data representing the objectives of said intermediated exchange.

124. (New) The method of claim 116, wherein the objectives of the intermediated exchange are represented by a parameterized utility function with constraints that depend on the interests of the plurality of the participants.

125. (New) The method of claim 116 further comprising a step of determining, for each participant, the monies due from and the monies due to the participant in dependence on the participant's substantially-satisfactory commodity amounts and on concurrent commodity prices.

126. (New) The method of claim 125 further comprising obtaining the concurrent commodity prices from an external source.

127. (New) A computer system for automatically determining a single simultaneous exchange of a plurality of commodities among a plurality of participants comprising:

one or more processors,

one or more links communicatively connecting the processors, and

one or more memories accessible by the processors and storing program instructions for causing the processors to perform the method of claim 116.

128. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 116.

129. (New) A computer implemented method for electronic intermediated exchange of a plurality of commodities among a plurality of participants comprising the steps of: [a

processor, and an electronic memory accessible to the processor for storing (i) digital data representing commodity exchange objectives of the intermediated exchange, and (ii) program instructions for causing the processor to perform the step of generating electronic offer messages in accordance with objectives of the intermediated exchange until the offer messages are substantially satisfactory in accordance with the objectives of the intermediated exchange or are indicated to be satisfactory by the participants, wherein the offer message are generated in response to]

(a) receiving from the participants

(i) electronic opening messages, which comprise digital data representing opening requests of the participants to buy and/or to sell amounts of one or more commodities, and

(ii) electronic counter-offer messages, which comprise digital data representing further requests of the participants to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, and

(b) generating electronic offer messages to the participants,

wherein the offer messages are generated in response to previously received opening messages and/or to counter-offer messages,

wherein electronic offer messages comprise digital data representing offers to the participants to buy and /or to sell amounts of one or more commodities with each offer being less than or equal to the amounts represented in the corresponding opening request, and

wherein, for at least one commodity, the opening messages and the offer messages comprise requests to both buy and to sell, and, for each commodity, the total of the amounts offered for sale in all the generated offer messages equals the total of the amounts offered for purchase in all the generated offer messages, and

(c) repeating steps (a) and (b), if necessary, until the last offer message to each participant is indicated in a further message from that participant to represent offered amounts of one or more commodities to buy and/or to sell in the exchange that are substantially satisfactory according to that participant's individual exchange objectives of the participants,

whereby the substantially-satisfactory offered amounts determine an exchange of a plurality of commodities among a plurality of participants.

130. (New) The method of claim 129 wherein the offer messages are generated so that the total amounts of the commodities offered for exchange in all offer messages are substantially maximized.

131. (New) The method of claim 129 wherein the offer messages are generated so that a measure of the unfairness of the share of commodities offered to each participant is substantially minimized.

132. (New) The method of claim 131 wherein the measure of unfairness increases as the share of commodities offered to the participants differs from a pro-rata share.

133. (New) The method of claim 129 wherein the step of generating the electronic offer messages further comprises substantially maximizing the value of a utility function of the amounts of commodities subject to constraints.

134. (New) The method of claim 133 wherein the utility function comprises a difference of a first term and a second term, the first term representing the total amount of all commodities offered to the participants and the second term representing the unfairness of the share of commodities offered to the participants.

135. (New) The method of claim 129 wherein offer messages are generated so that, after a number of repeats of steps (a) and (b), there is at least one commodity and at least one participant for which the amount offered for sale or purchase is less than the amount previously offered.

136. (New) The method of claim 129 further comprising:

obtaining commodity prices concurrent with the intermediated exchange from an external source, and

determining, for each participant, the monies due from and the monies due to the participant in dependence on the participant's substantially-satisfactory commodity amounts and on the concurrent commodity prices.

137. (New) A computer system for automatically intermediating a single simultaneous exchange of a plurality of commodities among a plurality of participants comprising:

a processor, and

a memory accessible by the processor and storing program instructions for causing the processor to perform the method of claim 129.

138. (New) The system of claim 137 further comprising a communication link to an external source of commodity prices.

139. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 129.

140. (New) A computer implemented method for representing a participant in an intermediated exchange of commodities among a plurality of participants comprising:

generating an electronic opening message to an intermediary, wherein the electronic opening message comprises digital data representing opening requests of the participant to buy and/or to sell amounts of one or more commodities; and

generating one or more electronic counter-offer messages to the intermediary in accordance with the participant's individual exchange objectives,

wherein the electronic counter-offer messages comprise digital data representing (i) further requests to buy and/or to sell amounts of one or more commodities with each further request being less than or equal to the amounts represented in the corresponding opening request, or (ii) an indication that the amounts in the previous offer message are substantially satisfactory to the participant,

wherein each [further request] counter-offer message is generated in response to a previous electronic offer message,

wherein an electronic offer message comprises digital data representing offers to the participant to buy and/or to sell amounts one or more commodities in accordance with objectives of the intermediated exchange with the offers being less than or equal to the amounts represented in the corresponding opening request, and

whereby the substantially-satisfactory, offered amounts represents each participant's objectives in the intermediated exchange.

141. (New) The method of claim 140 wherein the sending participant's substantial satisfaction with the previous offer message is indicated when the following counter-offer message represents the same amounts of one or more commodities to buy and /or to sell as are represented in the previous offer message.

142. (New) The method of claim 140 wherein the counter-offer messages are generated so that counter-offered commodity amounts are less than or equal to corresponding offered commodity amounts represented in the previous offer message.

143. (New) The method of claim 140 wherein the step of generating counter-offer messages further comprises evaluating one or more procedural rules.

144. (New) The method of claim 140 wherein the step of generating counter-offer messages further comprises evaluating [the] a portfolio theory.

145. (New) The method of claim 140 wherein the step of generating counter-offer messages further comprises substantially maximizing a utility function.

146. (New) A computer for automatically representing a participant in an intermediated exchange of a plurality of commodities comprising:

a processor, and

a memory accessible by the processor and storing program instructions for causing the processor to perform the method of claim 140.

147. (New) A computer readable media comprising encoded instructions for causing a computer to perform the method of claim 140.